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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,003	11/26/2001	Zvi Rapaport	005127.00007	9069
22907	7590	05/05/2004	EXAMINER	
BANNER & WITCOFF 1001 G STREET N W SUITE 1100 WASHINGTON, DC 20001			MUSSEY, BARBARA J	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/995,003

**Applicant(s)**

RAPAPORT, ZVI

**Examiner**

Barbara J. Musser

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-35 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what range "substantial" encompasses. It is unclear if "a substantial portion of a sidewall" could be only the portion of the sidewall necessary to form the seam since it forms the sidewall or if it requires some type of thermoforming, i.e. forming under heat and pressure to the shape of the mold, of the sidewall portion. For the purposes of examination, it is assumed to require at least the portion of the sidewall region necessary to form the seam.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rudy(U.S. Patent 5,083,361) in view of Lea et al.(U.S Patent 4,025,974), and Goodwin et al.(U.S. Patent 5,993,585).

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Rudy et al. discloses forming a resilient fluid-filled bladder for use in a shoe by heating and bonding two sheets to the upper and lower surfaces of a core having two outer layers connected by connecting members. The sheets are then joined together to form a peripheral bond at the mid-point of the core.(Figure 2b; Col. 3, ll. 13-17; Col. 12, ll. 21-28; Col. 25, ll. 4-20) The reference does not disclose the specifics of the joining of the sheets, but simply states they are welded together.(Col. 12, ll. 21-24) Lea et al.(Figure 18) and Goodwin et al.(Figure 9A) disclose welding the peripheral edges of sheets surrounding a core in a mold.

Rudy et al. does not bond the sheets to the core at the same time as it forms the peripheral bond, but rather does it in two steps. Lea et al. discloses it is known in the bonding arts to join two sheets around a core by placing the sheets and core in a mold and welding the edges together while bonding the core to the sheets.(Col. 12, ll. 23-67; Col. 13, ll. 38-45) It would have been obvious to one of ordinary skill in the art at the time the invention was made to weld the peripheral edges of the sheets together using a mold as this would insure proper positioning of the weld line as shown by Lea et al.(Figure 18) and Goodwin et al.(Figure 9A) and to bond the core to the sheets at the same time the peripheral seam is formed as this is an obvious alternative to doing it separately while also reducing production time since Lea et al. discloses it is known in the bonding arts to bond the core the sheets at the same time the peripheral seam is formed. The weld seam is a portion of the sidewall which is formed by contacting the mold with the sheet.

The sheets are thermoplastic since Rudy et al. discloses the sheets can be made of the same material as the adhesive joining the core surfaces to the surfaces, and that is a thermoplastic.(Col. 10, ll. 5-6; Col. 26, ll. 34-36)

Regarding claim 2, Goodwin et al. discloses forming the bladder such that the weld coincides with the planar surface of one of the sheets.(Figure 8A) It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the bladder so that the weld coincides with the planar surface of one of the sheets since this locates the seam away from the area of maximum flexing of the sidewall, increasing durability.(Col. 4, ll. 61-64)

Regarding claims 4, 24, and 33, the mold is configured to form the sidewall.(Lea et al., Figure 19)

Regarding claims 5, 25, and 34, one in the art would appreciate that the bond would be re-configured as shown in Goodwin et al.(Figure 8A) when it is desired to form the bladder so that the weld coincides with the planar surface of one of the sheets since this mold structure allows such.

Regarding claims 6-8 and 18-20, Rudy et al. discloses injecting gas into the space formed by the two sheets and the weld via an injection needle through an injection port.(Col. 12, ll. 59-63) The upper and lower surfaces of the core are held together by connecting members in a tensile configuration.(Col. 3, ll. 20-24)

Regarding claims 9, 21, and 31, one in the art would appreciate that the gas could be injected during bonding to press the sheets against the mold walls since

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applying pressure to form a sheet against a mold surface is well-known and conventional in the molding arts.

Regarding claims 10, 11, 22, 23, and 32, Goodwin et al. discloses it is known to use vacuum to pull a sheet against a mold surface so that it accurately conforms to the shape of the mold.(Col. 10, ll. 55-65) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use vacuum to pull the sheets against the mold surface so that they accurately conform to the shape of the mold.(Col. 10, ll. 55-65)

Regarding claims 13, 15, 17, and 27, Rudy et al. discloses applying a coupling material to the outer layers of the core to facilitate bonding.(Col. 24, ll. 53-65)

Regarding claims 14 and 28, while Rudy et al. heating the sheets at the same location that they are bonded to the core, one in the art would appreciate that the sheets could be pre-heated prior to placement in the mold to reduce the length of time in the mold particularly since it is well-known in the molding arts to preheat sheets prior to placement in the mold.

### ***Response to Arguments***

5. Applicant's arguments filed 4/15/04 have been fully considered but they are not persuasive.

Regarding applicant's argument that the references do not disclose the mold contacting a substantial portion of the sidewall region, applicant has not defined a substantial portion to mean more than the weld seam, which the references show.

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As applicant has not argued that applying pressure to form a sheet against a mold surface and pre-heating sheets prior to placement in a mold are not well-known and conventional, applicant is considered to have acquiesced to such.

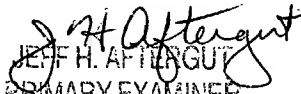
### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Barbara J. Musser** whose telephone number is **(571) 272-1222**. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
BJM

  
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